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NEW-HAVEN, CONN.

THE city of New-Haven, a seaport and semi-metropolis of Connecticut, is thirty-five miles south west of Hartford, seventy-six north eas. from New-York, one hundred and thirty-four from Boston, and three hundred and four from Washington.

The city lies round the head of a bay that sets up about four miles north of Long Island sound, and is situated on a large and beautiful plain, which is bordered on the north partly by eminences called *East* and *West Rock*, presenting bold and almost perpendicular columns of naked trap rock, 350 to 370 feet high. Two small rivers bound the city, one on the east and the other on the west. It was incorporated as a city in 1784; three miles long from east to west, and two miles wide. It is regularly laid out, and consists of two parts, old and new towns. The old town was laid out in a large square, and is divided into several smaller squares. The central square is intersected by a beautiful street, over-spread by elms. On this street are erected three handsome churches. Near the centre of the west section of this square is a new state-house, built after the model of the Parthenon. It has a commanding appearance; and its proportions, and the style of its workmanship, rank it with the best American buildings. The city contains three handsome churches for Congregationalists, and one for Methodist Episcopalians; two beautiful Gothic edifices, of stone, for Episcopalians; one for Baptists, and one for Africans. There are also a jail, an almshouse, a custom-house, a museum, two banks, two in-

insurance-offices, an institution for popular lectures, opened during the year 1831, and six printing-offices, from which are issued five weekly newspapers, and three other periodicals. The houses of New-Haven are mostly of wood, not expensive, but handsome and convenient; and the city is one of the most pleasant in the U. States. The public square and principal streets are finely ornamented with trees; and a great part of the houses have gardens filled with fruit-trees, which give to the city a rural and delightful appearance. The harbor is well defended from winds, but is shallow, and gradually filling up with mud; it has about seven feet on the bar at low water. The maritime commerce of New-Haven is greater than that of any other town in Connecticut. Both the foreign and the coasting trade are considerable, and packets and steam-boats ply regularly between this city and New-York. The Indian name of New-Haven was *Quinipiack*. It was first settled by the English in 1638. It was the capital of the colony of New-Haven, which continued distinct from the colony of Connecticut till 1665. The legislature of the state meets alternately here and at Hartford. Yale college, one of the most distinguished literary institutions in America, is established at New-Haven, it was incorporated in 1701; was originally placed at Killingworth: in 1707, removed to Saybrook; in 1717, to New-Haven. There are ten college buildings; four halls, 100 feet by 40, and four stories high, containing thirty-two rooms each for students; a new and convenient chapel, one story of which is appropriated to the theological school, and another to the college library; two other buildings, containing rooms for recitations, lectures and libraries; a dining-hall, of stone, with an elegant apartment above for the mineralogical cabinet and lectures, a chymical laboratory; and medical college, a large edifice, of stone. The college library contains 9500 volumes, and the students' libraries 9000. The philosophical and chymical apparatus are very good. The cabinet of minerals is the most valuable in the U. States. It contains above 16,000 specimens. The number of instructors in the academical department of Yale college is twenty; the number of

alumni, 4505; the number of students, without including medical, theological and law students, 331. Commencement is held on the third Wednesday in August. There are three vacations, viz. from commencement, six weeks; from the second Wednesday in January, two weeks; and from the first Wednesday in May, four weeks. In 1822, a theological school was established in connexion with this college. The number of students at present is 42; and there are three professors. There is a medical school, the lectures of which begin six weeks after the college commencement. It has six professors and 48 students. There is also a law school, having two professors, and 44 students. These numbers are all given for the year 1831. The city is also celebrated for the number of its boarding schools and smaller seminaries for the young of both sexes. The average number of persons who are here from abroad for the purpose of education is supposed to be rarely below a thousand. *Blue laws* is a name given to the quaint regulations of the early government of New-Haven plantation, when the public authorities kept a sharp watch over the deportment of the good people of the colony, and punished all breaches of good manners and good morals, often with a ludicrous formality.

The population in 1810 amounted to 5772, in 1820 to 7147, and in 1831 to 10,678.

THE PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES;

ILLUSTRATED BY ANECDOTES.

Self-educated man.—Ferguson.—Influence of accident in directing pursuits

Among self-educated men there are few who claim more of our admiration than the celebrated JAMES FERGUSON. If ever any one was literally his own instructor in the very elements of knowledge, it was he. Acquisitions that have scarcely in any other case, and probably never by one so young, been made without the assistance either of books or a living teacher, were the discoveries of his solitary and almost illiterate boyhood. There are few more interesting narratives in any language than the account which Ferguson himself

has given of his early history. He was born in the year 1710, a few miles from the village of Keith, in Banffshire; his parents, as he tells us, being in the humblest condition of life (for his father was merely a day-laborer,) but religious and honest. It was his father's practice to teach his children himself to read and write, as they successively reached what he deemed the proper age; but James was too impatient to wait till his regular turn came. While his father was teaching one of his elder brothers, James was secretly occupied in listening to what was going on; and, as soon as he was left alone, used to get hold of the book and work hard in endeavoring to master the lesson which he had thus heard gone over. Being ashamed, as he says, to let his father know what he was about, he was wont to apply to an old woman who lived in a neighboring cottage to solve his difficulties. In this way he actually learned to read tolerably well before his father had any suspicion that he knew his letters. His father at last, very much to his surprise, detected him one day reading by himself, and thus found out his secret.

When he was about seven or eight years of age, a simple incident occurred which seems to have given his mind its first bias to what became afterwards its favorite kind of pursuit. The roof of the cottage having partly fallen in, his father, in order to raise it again, applied to it a beam, resting on a prop in the manner of a lever, and was thus enabled, with comparative ease, to produce what seemed to his son quite a stupendous effect. The circumstance set our young philosopher thinking; and, after a while, it struck him that his father in using the beam had applied his strength to its extremity, and this, he immediately concluded, was probably an important circumstance in the matter. He proceeded to verify his notion by experiment; and having made several levers, which he called bars, soon not only found that he was right in his conjecture, as to the importance of applying the moving force at the point most distant from the fulcrum, but discovered the rule or law of the machine, namely; that the effect of any form or weight made to bear upon it is always exactly proportioned to the distance of the point on which it rests

from the fulcrum. "I then," says he, "thought that it was a great pity that by means of this bar, a weight could be raised but a very little way. On this, I soon imagined that by pulling round a wheel, the weight might be raised to any height, by tying a rope to the weight, and winding the rope round the axle of the wheel; and that the power gained must be just as great as the wheel was broader than the axle was thick; and found it to be exactly so, by hanging one weight to a rope put round the wheel, and another to the rope that coiled round the axle." The child had thus, it will be observed, actually discovered two of the most important elementary truths in mechanics—the lever, and the wheel and axle; he afterwards hit upon others; and, all the while, he had not only possessed neither book nor teacher to assist him, but was without any other tools, than a simple turning lathe of his father's and a little knife wherewith to fashion his blocks and wheels, and the other contrivances he needed for his experiments. After having made his discoveries, however, he next, he tells us, proceeded to write an account of them; thinking his little work, which contained sketches of the different machines drawn with a pen, to be the first treatise ever composed of the sort. When, some time after, a gentleman showed him the whole in a printed book, although he found that he had been anticipated in his inventions, he was much pleased, as he was well entitled to be, on thus perceiving that his unaided genius had already carried him so far into what was acknowledged to be the region of true philosophy.

It is a ludicrous blunder that the French astronomer, Lalande, makes, in speaking of Ferguson, when he designates him, as "*Berger au Roi d'Angleterre en Ecosse*;" the King of England's Shepherd for Scotland. He had no claim to this pompous title; but it is true that he spent some of his early years as a keeper of sheep, though in the employment not of the state, but of a small farmer in the neighborhood of his native place. He was sent to this occupation, he tells us, as being of weak body; and while his flock was feeding around him, he used to busy himself in making models of mills, spinning wheels, &c. during the day, and in

studying the stars at night, like his predecessors of Chaldaea. When a little older he went into the service of another farmer, a respectable man called James Glashan, whose name well deserves to be remembered. After the labors of the day, young Ferguson used to go at night to the fields, with a blanket about him and a lighted candle, and there, laying himself down on his back, pursued for long hours, his observations on the heavenly bodies. "I used to stretch," says he, "a thread with small beads on it, at arms-length, between my eye and the stars; sliding the beads upon it till they hid such and such stars from my eye, in order to take their apparent distances from one another; and then laying the thread down on a paper, I marked the stars thereon by the beads." "My master," he adds, "at first laughed at me; but when I explained my meaning to him, he encouraged me to go on; and, that I might make fair copies in the day time of what I had done in the night, he often worked for me himself. I shall always have a respect for the memory of that man." Having been employed by his master to carry a message to Mr. Gilchrist, the minister of Keith, he took with him the drawings he had been making, and showed them to that gentleman. Mr. Gilchrist upon this put a map into his hands, and having supplied him with compasses, ruler, pens, ink, and paper, desired him to take it home with him, and bring back a copy of it. 'For this pleasant employment,' says he, "my master gave me more time than I could reasonably expect; and often took the threshing flail out of my hands, and, worked himself, while I sat by him in the barn, busy with my compasses, ruler, and pen." This is a beautiful, we may well say, and even a touching picture—the good man so generously appreciating the worth of knowledge and genius, that, although the master, he voluntarily exchanges situations with his servant, and insists upon doing the work that must be done, himself, in order that the latter may give his more precious talents to their more appropriate vocation. We know not that there is on record an act of homage to science and learning more honorable to the author.

Having finished his map, Ferguson carried it to Mr.

Gilchrist's, and there he met Mr. Grant of Achoynamey, who offered to take him into his house, and make his butler give him lessons. "I told Squire Grant," says he, "that I should rejoice to be at his house, as soon as the time was expired for which I was engaged with my present master. He very politely offered to put one in my place, but this I declined." When the period in question arrived, accordingly, he went to Mr. Grant's, being now in his twentieth year. Here he found both a good friend and a very extraordinary man, in Cantley the butler, who had first fixed his attention, by a sun-dial which he happened to be engaged in painting on the village schoolhouse, as Ferguson was passing along the road, on his second visit to Mr. Gilchrist. Dialing, however, was only one of the many accomplishments of this learned butler, who Ferguson assures us was profoundly conversant both with arithmetic and mathematics, played on every known musical instrument except the harp, understood Latin, French, and Greek, and could let blood and prescribe for diseases. These multifarious attainments, he owed, we are told, entirely to himself and to nature.

(To be Continued)

CABINET OF NATURE

THE GREAT KENTUCKY CAVERN.

Give me, ye powers, the wondrous scenes to show,
Conceal'd in darkness, in the depths below.

For a very interesting account of this stupendous cavern, which is unparelled in the history of subterranean wonders, we are indebted to Dr. Nahum Ward, who published it in the Monthly Magazine of October, 1816. It is situated in Warren County, and in a territory not mountainous, but broken, differing in this respect from all other caverns hitherto known. The Doctor, provided with guides, two large lamps, a compass, and refreshments, descended a pit forty feet in depth, and 120 in circumference: having a spring of fine water at the bottom, and conducting to the entrance of the cavern. The opening, which is to the north, is from forty to fifty feet high, about thirty in width. It narrows shortly after, but again expands to a width of

thirty or forty feet, and a height of twenty, continuing these dimensions for about a mile, to the first *hoppers*,* where a manufactory of saltpetre has recently been established. Thence to the second of these *hoppers*, two miles from the entrance, it is forty feet in width and sixty in height. Throughout nearly the whole of the distance handsome walls have been made by the manufacturers, of the loose lime-stones. The road is hard, and as smooth as a flag pavement. In every passage which the Doctor traversed, the sides of the cavern were perpendicular, and the arches, which have bid defiance even to earthquakes, are regular. In 1802 when the heavy shocks of earthquakes came on which were so severely felt in this part of Kentucky, the workmen stationed at the second *hoppers*, heard about five minutes before each shock, a heavy rumbling noise issue from the cave, like a strong wind. When that ceased, the rocks cracked, and the whole appeared to be going in a moment to final destruction. However, no one was injured, although large portions of rock fell in different parts of the cavern.

In advancing into the cavern, the avenue leads from the second *hoppers*, west, one mile; and thence south-west, to the chief area or city, which is six miles from the entrance. This avenue, throughout its whole extent from the above station to the cross-roads, or chief area, is from sixty to one hundred feet in height, of a similar width, and nearly on a level, the floor or bottom being covered with loose lime-stone, and saltpetre earth: "When," observes the Doctor, "I reached this immense area (called the chief city) which contains upwards of eight acres, without a single pillar to support the arch, which is entire over the whole, I was struck dumb with astonishment.—Nothing can be more sublime and grand than this place, of which but a faint idea can be conveyed, covered with one solid arch, at least one hundred feet high, and to all appearance entire."

Having entered the area, the Doctor perceived five large avenues leading from it, from sixty to one hun-

*A hopper is an inverted cone, into which corn is put at a mill before it runs between the stones.

dred feet in width, and about forty in height. The stone walls are arched, and were from forty to eighty feet perpendicular in height before the commencement of the arch.

In exploring these avenues, the precaution was taken to cut arrows, pointing to the mouth of the cave, on the stones beneath the feet, to prevent any difficulty in the return. The first which was traversed, took a southerly direction for more than two miles: when a second was taken, which led first east, and then north, for more than two miles further. These windings at length brought the party, by another avenue, to the chief city again, after having traversed different avenues for more than five miles. Having reposed for a few moments on slabs of limestone near the centre of this gloomy area, and refreshed themselves and trimmed their lamps, they departed a second time, through an avenue almost north, parallel with the one leading from the chief city to the mouth of the cavern; and having proceeded upwards of two miles, came to the second city. This is covered with a single arch, nearly two hundred feet high in the centre, and is very similar to the chief city, except in the number of its avenues which are two only. They crossed it over a very considerable rise in the centre, and descended through an avenue which bore to the east, to the distance of nearly a mile, when they came to a third area, or city, about one hundred feet square, and fifty in height, which had a pure and delightful stream of water issuing from the side of a wall about thirty feet high, and which fell on a broken surface of stone, and was afterwards entirely lost to view.

Having passed a few yards beyond this beautiful sheet of water, so as to reach the end of the avenue, the party returned about one hundred yards, and passing over a considerable mass of stone, entered another, but smaller avenue to the right, which carried them south, through a third, of an uncommonly black hue, somewhat more than a mile; when they ascended a very steep hill about sixty yards, which conducted them to within the walls of the fourth city. It is not inferior to the second, having an arch which covers at least six acres. In this last avenue, the extremity of

which cannot be less than four miles from the chief city, and ten from the mouth of the cavern, are upwards of twenty large piles of saltpetre earth on the one side, and broken lime-stone heaped up on the other, evidently the work of human hands.

(To be continued.)

DEPARTMENT OF NATURAL HISTORY.

MASON-BEES.

It would not be easy to find a more simple, and, at the same time, ingenious specimen of insect architecture, than the nests of those species of solitary bees, which have been justly called mason-bees (*Megachile* LATREILLE.) Reaumur, who was struck by the analogies between the proceedings of insects and human arts, first gave to bees, wasps, and caterpillars those names which indicate the character of their labors; and which, though they may be considered a little fanciful, are at least calculated to arrest the attention. The nests of mason-bees are constructed of various materials; some with sand, some with earth mixed with chalk, and some with a mixture of earthy substances and wood.



Mason-Bee—(*Anthophora retusa*.)—Natural size.

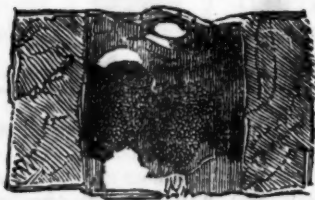
On the north-east wall of Greenwich Park, facing the road, and about four feet from the ground, we discovered, December 10th, 1828, the nest of a mason-bee, formed in the perpendicular line of cement between two bricks. Externally there was an irregular cake of dry mud, precisely as if a handful of wet road-stuff had been taken from a cart rut and thrown against the wall; though, upon closer inspection the cake contained more small stones than usually occur in the mud of the

adjacent cart-ruts. We should, in fact, have passed it by without notice, had there not been a circular hole on one side of it, indicating the perforation of some insect. This hole was found to be the orifice of a cell about an inch deep, exactly of the form and size of a lady's thimble, finely polished, and of the color of plaster of Paris but stained in various places with yellow.



Exterior wall of Mason-Bee's nest.

This cell was empty; but upon removing the cake of mud, we discovered another cell, separated from the former by a partition about a quarter of an inch thick, and in it a living bee, from which the preceding figure was drawn, and which, as we supposed, had just changed from the pupa into the winged state, in consequence of the uncommon mildness of the weather. The one which had occupied the adjacent cell had, no doubt, already dug its way out of its prison, and would probably fall a victim to the first frost.



Cells of a Mason-Bee (Anthophora retusa).—One third the natural size.

Our nest contained only two cells—perhaps from there not being room between the bricks for more.

An interesting account is given by Reaumur of another mason-bee (*Megachile muraria*), selecting earthly sand, grain by grain; her gluing a mass of these together with saliva, and building with them her cells from the foundation. But the cells of the Greenwich Park nest were apparently composed of the mortar of the brick wall; though the external covering seems to have been constructed as Reaumur describes his nest, with the occasional addition of small stones.

It is in instances such as these, which exhibit the adaptation of instinct to circumstances, that our reason finds the greatest difficulty in explaining the governing principle of the minds of the inferior animals. The mason-bee makes her nest by an invariable rule: the model is in her mind, as it has been in the mind of her race from their first creation: they have learnt nothing by experience. But the mode in which they accomplish this task varies according to the situations in which they are placed. They appear to have a glimmering of reason, employed as an accessory and instrument of their instinct.



Cells of Mason-Bees, built, in the first and second figures, by *Osmia-bi cornis* between bricks, and in the third, by *Megachile muraria* in the fluting of an old pilaster; about half the natural size.

The structure, when finished, consisted of a wall of clay supported by two contiguous bricks, enclosing six chambers, within which a mass of pollen, rather larger than a cherry-stone, was deposited, together with an egg, from which in due time a grub was hatched.—Contrary to what has been recorded by preceding naturalists, with respect to other mason-bees, we found the

cells in this instance quite parallel and perpendicular ; but it may also be remarked, that the bee itself was a species altogether different from the one which we have described above as the *Anthophora retusa*, and agreed with the figure of the *Osmia bicornis*.

There was one circumstance attending the proceedings of this mason-bee which struck us not a little, though we could not explain it to our own satisfaction. Every time she left her nest for the purpose of procuring a fresh supply of materials, she paid a regular visit to the blossoms of a lilac tree which grew near. Had these blossoms afforded a supply of pollen, with which she could have replenished her cells, we could have easily understood her design ; but the pollen of the lilac is not suitable for this purpose, and that she had never used it was proved by all the pollen in the cells being yellow, whereas that of the lilac is of the same pale, purple color as the flowers. Besides, she did not return immediately from the lilac tree to the building, but always went for a load of clay. There seemed to us, therefore, to be only two ways to explain the circumstance ;—she must either have applied to the lilac blossoms to obtain a refreshment of honey, or to procure glutinous materials to mix with the clay.

When employed upon the building itself, the bee exhibited the restless disposition peculiar to most hymenopterous* insects ; for she did not go on with one particular portion of her wall, but ran about from place to place every time she came to work. At first, when we saw her running from the bottom to the top of her building, we naturally imagined that she went up for some of the bricklayer's mortar to mix with her own materials : but upon minutely examining the walls afterwards, no lime could be discovered in their structure, similar to that which was apparent in the nest found in the wall of Greenwich Park.

Reaumur mentions another sort of mason-bee, which selects a small cavity in a stone, in which she forms her nest of garden mould moistened with gluten, and afterwards closes the hole with the same material.

* The fifth order of Linnaeus ; insects with four transparent veined wings.

VEGETABLE SUBSTANCES.

*The Egg-Plant and Love-Apple.*LOVE-APPLE—*Solanum lycopersicum*

The love-apple, or tomata, is a native of the tropical parts of South America. It is an annual: the leaves and flowers have some resemblance to those of the potatoe, only the latter are yellow. The fruit when ripe, attains the size of a small apple. It is compressed at the crown and base, and furrowed along the sides; the whole is of uniform color, and smooth and shining. There are some varieties both in the shape and color of the fruit; bright red and orange are the prevailing colors. The love-apple is used for eating in every stage of its growth. When green, it is pickled or preserved; when ripe, it is employed for soups and sauces and the juice is made into a kind of ketchup.

THE EGG-PLANT

Belongs to the same family, has the same habits, and requires nearly the same culture as the love apple. It is found in the warmer parts of Africa, Asia, and America: it is an annual; rises to the height of about two feet; bears light violet flowers, which are followed by large fleshy berries, having the size and shape, and, in the white varieties, very much the color and resemblance of eggs,—whence the common name. The forms of the egg-plant, are globe-shaped and oval; and some of both forms are white, and others purple or mottled. The egg-plant, according to the 'Hortus Kewensis, has been cultivated in England since the year 1596; but it has seldom been made use of as an article of cookery. Even on the continent, where the

temperature agrees better with its habits, it has not so much flavor as the love apple; but still it is used in soups and stews, and also eaten sliced and fried with oil or butter. Though the young plants require to be forwarded in a hot-bed, they may afterwards be made to produce fruit on warm and sheltered borders; and both they and the love-apple succeed best when placed against a sunny wall.

Beside the white egg-plant, (the *Solanum melongena* of Linnæus,) which has been long cultivated as a curiosity, though never used as food, there are several others: and M. Dunal, in his History of Solanums, has separated the edible ones, of which he has enumerated four varieties, into the species of *Solanum esculentum*. The round and the long variety of the esculent are both cultivated in the garden of the Horticultural Society. The plants, which are annuals, are raised to the height of nine or ten inches in the stove, and then planted on the borders in the open air where they grow to the height of between two and three feet. The fruits of both are large: the round, or rather oval (for that is its proper shape), is four inches long and about three thick. This variety is called the Mammoth egg-plant. The long has larger fruit, measuring sometimes as much as eight inches in length. They vary much more in color than the round,—some of them being streaked with yellow. Other varieties are described as being found in India; but the seeds that have been sent to this country have produced fruit similar to the kinds now mentioned.

Various species of the solanum are common in the Levant: and three are particularly described by Dr. Walsh in the Horticultural Transactions. The following is the substance of his communication:—

Solanum Ethiopicum is the scarlet egg-plant, of which the fruit is produced in the neighborhood of Constantinople; but it is rare, being never sold in the markets, and but seldom seen in private gardens. It is used as an ingredient in soups.

Solanum Sodomeum is a purple egg-plant, of which the fruit is large and handsome. A species of *cynips* often attacks and punctures the rind; upon which the whole fruit gangrenes, and is converted into a substance

like ashes, while the outside is fair and beautiful. It is found on the borders of the Dead Sea, and is that apple, the external beauty and the internal deception of which have been so celebrated in fabulous, and so perplexing in true history.

"Dead-Sea fruits, that tempt the eye,
But turn to ashes on the lips."

The dreadful judgment of the cities of the plain, recorded in sacred history,—the desolation around the Dead Sea,—the extreme saltness of its waters, the bitumen, and, as is reported, the smoke that sometimes issued from its surface,—were all calculated for making it a fit locality for superstitious terrors; and among the rest were the celebrated apples which are mentioned by Josephus, the historian of the Jews, not as fabulous matters of which he had been told, but as real substances which he had seen with his own eyes. He says, they "have a fair color, as if they were fit to be eaten; but if you pluck them with your hand, they vanish into smoke and ashes."

Milton, who collected all of history or fable that could heighten the effect of his poem, refers to those apples as adding new anguish to the fallen angels, after they had been transformed into serpents, upon Satan's return from the temptation of man.

—"There stood
A grove hard by,
—laden with fair fruit, like that
Which grew in Paradise, the bait of Eve,
Us'd by the Tempter: on that prospect strange
Their earnest eyes they fix'd, imagining,
For one forbidden tree, a multitude."

* * * * *

"They, parched with scalding thirst, and and hunger fierce,
—could not abstain;
But on they rolled in heaps, and up the trees
Climbing, sat thicker than the snaky locks
That curl'd *Megara*: Greedily they pluck'd
The fruitage fair to sight, like that which grew
Near that bituminous lake where Sodom placed;
This more delusive, not the touch but taste
Deceives; they fondly thinking to allay
Their thirst with gust, instead of fruit
Chew'd bitter ashes, which the offended taste
With sputtering noise rejected."

CIRCLE OF THE SCIENCES WITH SUITABLE
REFLECTIONS.

COMETS.

"At His command, affrighting human kind,
Comets drag on their blazing lengths behind,
And though sometimes they near approach the sun,
Sometimes beyond our system's orbit run,
Throughout their course they act their Maker's will,
His power declare, His purposes fulfil."

*"They fought from heaven; the stars, in their courses, fought against
Sisera."—Jud. v. 20.*

The astronomy of comets may be said to be in its infancy, scarcely any knowledge having been gained of them before the 17th century. The ancients, it seems knew very little of their nature. Seneca relates his having seen three: but they were merely considered, both by him and his cotemporaries, as wandering stars, or fiery meteors, generated of bituminous exhalations from the earth, which, being raised into the higher regions of the air, were set on fire, and there continued till they were consumed. They were also believed to be ominous phenomena, displayed by the Deity to terrify mankind, and give warning of some dreadful calamity; and the same opinion has prevailed from the time of the Roman empire till the illustrious Newton extending his discoveries beyond even the confines of our system, in his aerial researches through the regions of space, discovered the periodical return of these (till then) awful strangers.

Comets, according to sir Isaac Newton, are compact durable bodies; that is a kind of planets which move in very oblique elliptical orbits every way with the greatest force persevering in their motions even against the course of the planets; and their tails are very thin and slender vapors emitted by the head or nucleus of the comet, ignited or heated by the sun. But the length of time in which they are performing their revolutions, and the short stay they make within sight of our planet must long render their history dark and obscure.

Some philosophers, have asserted, that the matter which constitutes their tails is not an illuminated vapor, but a self-shining substance, which in all their positions and whatever the directions of their motions

whether to or from the sun, is thrown off from its dark atmosphere in a direction opposite the sun a short time before or after its perihelion. Others have shown that there is a perfect analogy between their tails and the aurora borealis, and suppose that they are both formed from the emanation of the electric fluid from their respective bodies, although it was the opinion of Sir Isaac Newton that they were planetary bodies, most likely inhabited. Yet others have differed from him and have supposed that they were formed

From their huge vap'ry train, perhaps to shake
Reviving moisture on the numerous orbs
Through which their long ellipsis winds.

THOMPSON.

Others again have supposed that they were fiery bodies designed perhaps

To lend new fuel to declining suns,
To light up worlds, and feed the eternal fire.

THOMPSON.

Some have supposed them to be worlds which having performed their office in creation, are in a state of fusion. But the still more prevailing opinion than either that has been mentioned is, that one of them is intended to burn up this earth. This opinion, which seems to have been almost coeval with time itself, is supposed to have its foundation in the sacred writings.

The comet of 1680, is supposed to be the one intended to perform this dreadful operation: the period of its return is 575 years and its distance from the sun is 13 millions of miles. This Comet passed by the earth's orbit in the year of the universal deluge, and by its attraction, is supposed to have assisted in elevating the waters, and drawing them over the surface. In the year 1680, it passed very near the earth's orbit, but she was then in a distant part. It approached the sun within one-sixth of his diameter from his surface, moving with the velocity of 880,000 miles an hour, and was heated to a degree of intensity 2000 times greater than the heat of red-hot iron. It will return in the year 2225.

The number of Comets is supposed to be no less than 450. There are Comets of much shorter periods than

that of 1680. The Comet *Halley* appeared in 1759, its period is 75 years : and it will return again in 1834 or 1835.

HISTORICAL AND PHYSICAL GEOGRAPHY OF THE
HOLY LAND—No. IV.

RIVERS

In consequence of the paucity of showers in the east, WATER is an article of great importance to the inhabitants. Hence, in Lot's estimation, it was a principal recommendation of the plain of Jordan that it was *well watered every where* (Gen. xiii. 10.) : and the same advantage continued in later ages to be enjoyed by the Israelites, whose country was intersected by numerous brooks and streams.

Although *rivers* are frequently mentioned in the sacred writings, yet, strictly speaking, the only river in the Holy Land is the Jordan, which is sometimes designated in Scripture as *the river* without any addition ; as also is the Nile (Gen. xli. 1. Exod. i. 22. ii. 5. iv. 9. vii. 18. and viii. 3. 9. 11.), and occasionally, the Euphrates (as in Jer. ii. 18.) : in the passages here referred to, the tenor of the discourse must determine which is the river actually intended by the sacred writers. The name of river is also given to inconsiderable streams and rivulets, as to the Kishon (Judges iv. 7. and v. 21.) and the Arnon. (Deut. iii. 16.)

The principal river which waters Palestine is the JORDAN or *Yar-Dan*, i. e. the river of Dan, so called because it takes its rise in the vicinity of the little city of Dan. Its true source is in the lake Phiala near Cæsarea Philippi, at the foot of Antilibanus, or the eastern ridge of mount Lebanon, whence it passes under ground, and, emerging to the light from a cave in the vicinity of Paneas, it flows due south through the centre of the country, intersecting the lake Merom and the sea or lake of Galilee, and (it is said) without mingling with its waters ; and it loses itself in the lake Asphaltites or the Dead sea, into which it rolls a considerable volume of deep water, and so rapid as to prevent a strong, active, and expert swimmer from swimming

across it. The course of the Jordan is about one hundred miles; its breadth and depth are various. All travellers concur in stating that its waters are turbid, from the rapidity which they flow.

Anciently, the Jordan overflowed its banks about the time of barley-harvest (Josh. iii. 15. iv. 18. 1 Chron. xii. 15. Jer. xlix. 19.) or the feast of the passover; when, the snows being dissolved on the mountains, the torrents discharged themselves into its channel with great impetuosity. Its banks are covered with various kinds of bushes and shrubs, which afford an asylum for wild animals now, as they did in the time of Jeremiah, who alludes to them. (Jer. xlix. 19.)

The other remarkable streams or rivulets of Palestine are the following: viz. 1. The *Arnon*, which descends from the mountain of the same name, and discharges itself into the Dead Sea:—2. The *Sihor* (the Belus of ancient geographers, at present called the Kardanah,) has its source about four miles to the east of the heads of the river Kishon. It waters the plains of Acre and Esdraelon, and falls into the sea at the gulf of Keilah:—3. The brook *Jabbok* takes its rise in the same mountains, and falls into the river Jordan:—4. the *Kanah*, or brook of reeds, springs from the mountains of Judah but only flows during the winter: it falls into the Mediterranean Sea near Cæsarea:—5. The brook *Besor* (1 Sam. xxx. 9.) falls into the same sea between Gaza and Rhinocorura:—6. The *Kishon* issues from the mountains of Carmel, at the foot of which it forms two streams; one flows eastward into the sea of Galilee, and the other, taking a westerly course through the plain of Jezreel or Esdraelon, discharges itself into the Mediterranean Sea. This is the stream noticed in 1 Kings xviii. 40.:—7. *Kedron*, *Kidron*, or *Cedron*, as it is variously termed,* runs in the valley of Jehoshaphat, eastward of Jerusalem, between that city and the mount of Olives; except during the winter, or after heavy rains, its channel is generally dry, but when swollen by torrents it flows with great impetuosity.

* 2 Sam. xv. 23. 1 Kings xv. 13. 2 Kings xxiii. 6. 12. 2 Chron. xix. 16. Jer. xxxi. 40. John xviii. 1.

MODERN ASPECT OF THE CITY OF ANTIOCH.



The city of Antioch, now called by its inhabitants Antaky, is seated at the foot of a steep and bare hill, which terminates the range of Jebel Okrah, the mount Casius of the ancients standing on its north-western side, and having open before it a wide valley, and the range of Jebel Ahhmar from west to north, at the distance of from ten to fifteen miles. It thus resembles, very nearly, the situation of Balbeck in the valley of Bukhah, as these mountains are not much inferior to Libanus and Anti Libanus in height, and the valley between them is about the same breadth, and takes the same direction of N. E. leaving an unbounded plain in that quarter: but here the hill that overlooks the town is steeper and more abrupt than at Balbeck, and the vale in which it stands is more thickly wooded and highly cultivated, as the course of the Ahssy through it distributes fertility along its winding way.*

The town, though inferior only to Aleppo, Damascus, and Hamah, in size, and, consequently larger than any of those on the coast, is not so well built as these generally are, and has no large public buildings of any

*Antioch is described by Benjamin, of Tudela, to be situated in the valley of Jabok, upon the river Pir, which comes from Lebanon through the land of Hamath. It was thought in his day, to be the best fortified place in the hands of the gentiles.

beauty. The houses are mostly constructed of stone, and are all pent-roofed and covered with red tiles; many of them are three stories high, but more generally two, and the upper part is then constructed of wood. The streets are narrow, having a high raised causeway of flat pavement on each side for foot passengers, and a very narrow and deep passage between these for horses, seldom wide enough to admit of two passing each other. The bazars are mostly open, and resemble those of the country generally. They are unusually numerous, however, in proportion to the size of the town, as this is a mart of supply for an extensive tract of country around it. All the articles in demand are found here in abundance, and the manufactures of the town itself consists in coarse pottery, cotton, cloth, some silk twist, several tanneries, and saddlery; for which last article, particularly bridles, martingales, &c. of fancy work, in leather, the workmen of Antaky are celebrated. The population here is thought to exceed 10,000, among which there are counted about 150 Christian families, and 20 Jewish ones. The language of the people is Turkish, the Mahommedans speaking no other, and the Christians only understanding Arabic from their connexion with the country to the southward in their commercial transactions. The Mahommedans have fourteen mosques, six of which are ornamented with tall and slender white minarehs, with round close galleries, and blue pointed tops, surmounted by the crescent, in the purely Turkish taste; six others have lower and thicker minarehs of octangular shafts, with open galleries, and a sort of flat dome or umbrella top in the Syrian-Arabian style; and two are merely small venerated tombs used as places of prayer. There are two khans, and several fountains, all of them of a very ordinary kind. We noticed one of the last, called *Ain-el-Omra*, or the fountain of life, between the stones of which were driven in some thousands of nails. Its waters, are indeed, excellent, and, being esteemed as possessing several medicinal virtues, the afflicted who drink of them drive in a nail near the spot, either as a propitiatory offering, or a token of gratitude after recovery, to the supposed genius of the stream.

The Christians have made several unsuccessful efforts to build a church for themselves here; but, though they are not wanting in wealth, and successive firmans have been obtained from Stamboul for that purpose, yet, the fanaticism of the Turks, and some unfortunate fatality which they think attached to the town itself, has hitherto always obstructed its execution. They resort, therefore, to a cave on the east end of the town, for the performance of their religious duties, in which they are additionally devout, from the apparent persecution under which they live, in this respect at least. The Jews assemble on their sabbath in a small room devoted to their synagogue in the house of their chief, and are there unmolested.—*Buckingham's Travels among the Arab Tribes.*

TOPOGRAPHICAL SKETCHES.—No. I.



COPENHAGEN,

The capital of the kingdom of Denmark and the residence of its monarch, is one of the finest cities in the north of Europe. In elegance and beauty it surpasses even St. Petersburg, for although the proud city of the autocrat can boast of edifices of greater architectural splendor, yet as these are mingled with paltry wooden buildings and unsightly log huts they present the disagreeable picture of meanness contrasted with magnificence and squalid poverty with overgrown wealth.

Copenhagen, on the other hand, exhibits a more equable and uniform appearance ; its streets are regular and well lighted, its houses spacious and well built ; those of the nobility in particular are splendid buildings, generally of hewn stone and in the Italian style of architecture. This beauty is owing in a great measure to a dreadful fire which in 1728 consumed a large portion of the city, destroying five churches and sixty-seven streets. The inhabitants following the example of the people of London, availed themselves of the opportunity thus afforded to improve their city, and laid out wider streets and erected new and far more costly edifices in the place of those which had fallen before the devouring element. That part of the city called the New Town was erected by Frederick the fifth and is extremely beautiful. It consists of a splendid octagon containing four uniform and elegant buildings of stone, with four spacious streets leading to it from opposite directions ; in the centre is an extensive area in which stands a magnificent equestrian statue of Fredrick the fifth in bronze, said to have cost £80,000. Part of Copenhagen is built upon an Island called Amac, which is separated from the rest of the city by a broad canal. This part of the city is called *Christianshafen*, from Christian the second, by whom the island was consigned to a Colony from Friesland, at the request of his wife, for the purpose of supplying her with vegetables, eggs, cheese, and butter. The descendants of these colonists still inhabit the island, and as they preserve the dress and habits of their Friesland ancestors, and still enjoy peculiar privileges, they appear quite a distinct race from the native Danes—for all minor offences they are amenable only to their own tribunals, but for capital crimes are subject to the jurisdiction of the King's court of justice at Copenhagen. The whole island is laid out in gardens and vegetables, and still supplies the city with poultry, milk, butter and vegetables, according to the original design.

Copenhagen is not an ancient city ; the precise date of its foundation is disputed, but may be placed about the middle of the twelfth century ; at this time it consisted of a small fishing village and was presented by

the King to one of his bishops. About the same period a Castle was erected for the protection of the people against the swarms of pirates who then infested the Baltic; the facilities of the situation for the prosecution of commerce, and the security afforded by the castle when the rest of the country was open to invasion, induced numbers of the Zealanders to collect in this spot, and thus a city was speedily built up. Toward the middle of the fifteenth century it was chosen as the royal residence by Christopher of Bavaria, it subsequently became the capital of the kingdom, and has been rapidly increasing in magnitude and beauty ever since.— The great prosperity of the city was owing principally to the busy spirit of commerce, which but a few years since was every where visible in its streets; its harbor was always crowded with the ships of every nation, and the broad canals which intersect its streets resounded with the merry laugh and song of the mariners who brought their merchandize to the very doors of the spacious warehouses which lined its quays. Of late, however, its commerce has very much declined.

Copenhagen contains 230 streets, and 13 public squares; 22 churches, 22 hospitals, 30 almshouses, 114 schools, and 3 convents. Among its more splendid buildings we may mention the four palaces of the King, the arsenal which contains the Royal Library of 400,000 volumes, the exchange, the bank, and the university. In 1807, the town was bombarded by the English and an immense number of houses with many splendid edifices were entirely destroyed: upwards of 2000 of the inhabitants lost their lives. The city at present contains about 110,000 inhabitants, of whom nearly 3000 are Jews. Copenhagen is situated in 55° 41' 44" N. lat. and 12° 35' 6" E. lon. on the Islands of Zealand and of Amac, which are separated by a narrow branch of the Sea.

All travel has its advantages; if the passenger visits better countries, he may learn to improve his own; and if fortune carries him to worse, he may learn to enjoy it.



THRESHING IN THE EAST.

To introduce the information furnished by the above sketch, we shall first notice the *threshing floor*; which is a level, smooth area, enclosed by mud-brick walls, having a proper opening for entrance, and on one side of it the barn or garner, the door of which is seen in the wall. The area enclosed by these walls is either prepared according to the account of Dr. Shaw, or naturally smooth, hard, and bound, so as to be fit for using without that preparation. The figures at the lower corner of the plate, represent the wain, car, cart, drag, or threshing instrument, so called by different translators of the Sacred Scriptures. In the left hand figure it is supposed to be set upright on one of its sides, and appears to consist of a strong square frame, well secured with iron pins to keep it tight and steady: within this are three rollers, whose pins at each end are inserted into the frame, and pass through it; on each of these rollers are circular iron *cutters*, with sharp edges, the track of which lies *between* that of the other cutters which compose the instrument; and it is these cutters that are furnished with teeth, which are alluded to in the forty-first chapter and fifteenth verse of the prophet Isaiah.

The right hand figure is an elevation, or side view of the same instrument, which shows that the external square frame turns upward in front, that it may more readily pass over the straw, or haulm, that lies before it. The pins which mark the insertion of the rollers are also seen; and from this frame rises a seat or kind of chair, for the convenience of the driver. The yoke is represented in connexion with the left hand figure, to which it joins by rings and a hook which allow of free motion; and the other end, which is borne by the oxen, is equally constructed for securing the same advantage.

The principal subject of the above draught shows the manner of using this machine, which presents, what it proposes to illustrate, in a more lively manner to the eye than it is possible for the best written account to describe.

Beyond the circle of corn strewed for threshing, a man is engaged in winnowing a quantity of corn, which is already threshed, by throwing it up against the wind, which blows away the chaff, but leaves the grains of corn; the weight of which ensures their falling down. Observe the form of the *fan* used by this figure: it resembles a small shovel, with a long handle; unlike any kind of corn fan, or winnowing machine used in this country: the representation of it therefore is well adapted to correct whatever erroneous conceptions of the instrument the reader might heretofore have entertained.

The number of passages in Scripture which may be explained or illustrated by means of the above delineations, is too great to be enumerated here; and the youthful reader will find it a delightful task to search the Bible for, and compare them with this account. We shall, however, refer him to the second verse of the eighty-ninth Psalm, the seventh verse of the fifteenth chapter of Jeremiah, and especially to the twelfth verse of the third chapter of St. Matthew, where the process of winnowing with the fan is alluded to; and remark in conclusion that we here see the import of the phrase "thou shalt not muzzle the ox when he treadeth out the corn," as applied by the apostle to ministers—that is, "it is not fit that he who contributes to prepare food

for others should be denied a portion of sustenance for himself." And it is a remarkable fact, that among all the nations of the East, the oxen which tread out the corn never were, and to this day are *not* muzzled, although they always were and still are muzzled when employed in any other kind of labor.

SKETCHES OF CHARACTER.

SIR WILLIAM HERSCHEL.

This eminent astronomer was born at Hanover in 1730. His father was a musician. At the age of 14 he was placed in the band of the Hanover regiment of guards. About the year 1758 he proceeded with a detachment of his regiment to England, accompanied by his father, who, after a short stay returned to his native country, leaving his son in England. For several years he obtained a subsistence by his musical talents, devoting his leisure hours to the study of the English and Italian languages; he also made some progress in the Greek and Latin. The bent of his inclination during this period, was however, principally directed to mathematics, and astronomy, and frequently after a harassing day of 14 or 16 hours occupied in his professional avocations, he would seek relaxation, if such it might be termed, in extending his knowledge in his favorite pursuits.

Having in the course of extensive reading made some discoveries which awakened his curiosity, he commissioned a friend in London to procure him a telescope of large dimensions, but the price being above his limited means, he resolved to construct one himself. After innumerable disappointments, he completed a five feet Newtonian reflector. The success of his first attempt encouraged him to fresh efforts, and in a short time he made telescopes from seven to twenty feet. As a proof of his perseverance, it is said, that in perfecting the object mirror for his seven feet instrument, he finished two hundred before he produced one that satisfactorily answered his purpose.

As his love for the study of astronomy increased, he gradually lessened his professional engagements. and in

1779 he commenced a regular review of the heavens, star by star. In the course of eighteen months' observation he remarked that a star, which had been recorded by former astronomers as a fixed star, was gradually changing its position; and after much attention he was enabled to ascertain that it was an undiscovered planet. He communicated the fact to the Royal Society, who elected him a fellow, and decreed him their annual gold medal. This great discovery was made on the thirteenth of March, 1781, and bestowed on that planet the name of *Georgium Sidus*, in compliment to the king, who in consequence of his merit settled on him a handsome salary, which enabled him to relinquish his professional occupations, and devote himself wholly to the study of astronomy.

He shortly afterwards, fixed his permanent residence at Slough, near Windsor, where, in the hope of facilitating and extending his researches, he undertook to construct a telescope of forty feet, which was completed in the year 1787. With the aid of this ponderous instrument, assisted by others of a more manageable size, he continued to enrich the stores of astronomical science. In these researches he was materially assisted by his sister, Miss Caroline Herschel, who was equally devoted to the study which has immortalized her brother.

In 1793 he announced the discovery of a volcanic mountain in the moon, and four years afterwards communicated the account of two other volcanoes in that orb, which appeared in a state of eruption. Showing these apparent eruptions at one time to a gentleman, the latter exclaimed, that he not only saw the *fire* but the *smoke*.

It will be impossible in a sketch like the present, and perhaps also superfluous, to detail the many important discoveries which have been made by this great astronomer; they are well known to the scientific world. By his labors he is justly esteemed as the most celebrated man of his age. Various public bodies testified their respect for his talents, and his sovereign conferred on him the honor of knighthood.

Sir William died on the 23d of August, 1822, leav-

ing behind him an unblemished reputation in private life. His name will descend to posterity as one of the greatest astronomers of the age in which he lived.

YOUNG LADIES' DEPARTMENT.**TO YOUNG LADIES.**

To you, my young friends, I would address myself, in the language of deep and earnest interest. You are now at that delightful period of life, which is like spring among the seasons, redolent of beauty and freshness, and giving fair promise of the rich fruits of maturer years. Take heed the young blossoms be not blighted. Call to mind the countless advantages which have been bestowed on you—reflect upon the anxious solicitude of the fathers who wait to see you the object of their pride, as well as the sources of their happiness—remember the cares, the exertions, the almost heart-breaking anxiety of the mothers who have guided your infant feet to the threshold of the temple of knowledge, and then press forward “in the race set before you.” You are entering upon a noble career. The pure, and elevated, and holy duties which are peculiarly a woman’s, will soon claim your undivided attention. Let me pray you, therefore, so to discipline your hearts, so to cultivate your minds, so to purify your spirits, now, during the unbroken leisure of youth, that the hour of trial may find you ‘with your lamps trimmed and burning.’ You have begun well—go on then in the same course, and remember that “of those to whom much is given, much will be required;” and that genius and knowledge, while they lay claim to the highest honors which men can bestow, also bear with them the highest responsibilities both to God and man. Science is now opening to you her richest stores of honor, and usefulness; and the prayers of parents and friends are following you, when you are utterly unconscious of them. Pause then—in the cool freshness of the morning of life, before you wax faint in the noonday heats—pause and form for yourselves the noble resolutions which should direct your future

life. Look back through the shadowy vista of past, years, and behold what are the foundations of the most lasting honors of men. Look forward, with the eye of faith, to the glories of the promised land; and while you weigh well the different results of moral conduct, take heed that you "keep your hearts with all diligence, for out of them are the issues of life." Form your taste on the classics, and your principles on the book of all truth. Let the dawn of your being be hal- lowed by that pure devotion, which is ever an offering of a "sweet smelling savor" to the bounteous giver of all good. Let the first fruits of your intellect be laid before the altar of *Him* who breathed into your nostrils the breath of life, and with that breath your immortal spirit: and while your life furnishes the most striking illustration of the benefits of education, let it be your care so to persevere unto the end that it may be said of each, in her own peculiar sphere, "Many daughters have done virtuously, but thou excellest them all."

Mrs. Embury.

POETRY & MUSIC.

THE PRAYER AT SEA.

Father Supreme!—to thee our prayers ascending,
 Rise from the bosom of the heaving deep,
 From the wide waste of troubled waters—blending,
 With the free winds that o'er the billows sweep,
 Far and resistless—wilt thou not attending
 List to the voice of those who watch and weep?

O'er the vex'd world of waters still thou movest,
 In the dark rushing of the billowy main;
 Yet oft, with mercy's gentle voice, reprove'st
 The storm to calmness,—and we see thee then
 Arching the clouds with glory—for thou lovest,
 Even on the tempest's verge, to smile again.

Hast thou not measured out the seas, and given
 Bounds to the whirlwind, which its rage adjust?
 And shall we not adore thee?—Whom in heaven,
 Or whom on earth, beside thee, shall we trust?
 We, by thy breath, through Ocean's surges driven,
 Like the tost sea-spray, or the scatter'd dust.

Whom shall we fear beside thee?—Men, but thinking
 On thy unfathomed depths, despair and die;—
 Earth sees her GOD, and trembles—Ocean, sinking
 Through his dark caverns, leaves his borders dry;—
 The Heaven of Heavens, before thine anger shrinking,
 Rolls like a scroll away, and shuns thine eye.

Whom shall we love beside thee?—Seas may sever
 Hearts whose fond ties are but the wreaths of earth,
 Wreaths of fast fading flowers which bloom, but ever
 Die with the hour that gives their fragrance birth.
 Thy love, unchanging and unending, never,
 Saviour—oh never can we speak its worth!

Didst thou not veil thy glory, and, descending,
 Dwell for our sakes in grief—and stoop to be
 Even with the humble, humblest—poor and wending
 By the rough mountain paths, or troubled sea?
 Now thou dost hear our lonely cry ascending—
 Whom shall we trust, Redeemer,—whom but thee?

On—let the winds sweep on—our prayers before thee,
 Fraught with our sighs and sorrows shall appear;—
 On—let the waves heave onward—we adore thee,
 We trust, love, serve thee—how then shall we fear?
 Even though thy tempests whelm us, we implore thee,
 This, only this—be Thou, our refuge, near.

SHE HATH PASSED FROM THE EARTH.

BY O. W. W.

She hath passed from the earth, but we may not lament her,
 Nor mourn her return to a holier clime;
 She but lingered below, until He who had sent her,
 Recalled her to Eden in morning's sweet prime.
 Could the beauty and freshness of youth have retained her,
 We had not been called o'er her slumber to weep;
 Yet mourn not, since death in his power hath but gained her,
 A joyful awaking from earth's transient sleep.
 Ere the sorrows of earth or its passions had moved her,
 Ere darkened the light of her innocent brow;
 She bade a farewell unto those who so loved her,
 And whispered—my Father, I come to thee now.
 The terrors of death had no power to alarm her;
 She felt not his darkness, and feared not his sting,—
 The thought of her Saviour's kind mercy did calm her,
 And the spirit went upward on faith's ardent wing.
 In her beauty she sleeps, but we will not regret her—
 Our tears may not moisten the flowers on her tomb:
 For the smiles of her Saviour in mercy have met her—
 Oh death thou art vanquished—and past is thy gloom.

Then calm be the spot where her form now reposeth ;
 May the friends who so loved her revisit the grave,
 And feel—though the cold sod her ashes encloseth—
 She lives in the presence of Him who can save!

THE SUNDAY SCHOOL.

Group after group are gathering—such as prest
 Once to their Saviour's arms, and gently laid
 Their cherub heads upon his shielding breast,
 Though sterner souls the fond approach forbade ;
 Group after group glide on with noiseless tread,
 And round Jehovah's sacred altar meet,
 Where holy thoughts in infant hearts are bred,
 And holy words their ruby lips repeat,
 Oft with a chastened glance, in modulation sweet.

Yet some there are, upon whose childish brows
 Wan poverty hath done the work of care :
 Look up, ye sad ones ! 'tis your Father's house
 Beneath whose consecrated dome you are :
 More gorgeous robes ye see, and trappings rare ;
 And watch the gaudier forms that gaily move ;
 And deem, perchance, mistaken as you are,
 The "coat of many colors" proves his love,
 Whose sign is in the heart, and whose reward above.

And ye, blest laborers in this humble sphere,
 To deeds of saint-like charity inclin'd,
 Who from your cells of meditation dear
 Come forth to guide the weak, untutor'd mind—
 Yet ask no payment, save one smile refined
 Of grateful love—one tear of contrite pain !
 Meekly ye forfeit to your mission kind
 The rest of earthly Sabbaths. Be your gain
 A Sabbath without end, 'mid yon celestial plain !

NIGHT.

When I look forth into the face of night,
 And see those silent orbs that gem the sky—
 The moon that holds her glorious path on high—
 The countless host of stars of lesser light,
 All moving on their destined course aright,
 Through the broad ocean of infinity,
 Steer'd by the hand of Him whose glories lie
 Beyond the stretch of mortal sense or sight—
 When I behold all Heaven divinely bright
 With this array, and downward turn mine eyes,—
 My soul expands into its native might,
 And loathes the burden of that coil that lies
 Like lead upon the soul, and clogs its flight
 Unto its purer seat and kindred skies.

THOUGHTS OF WONDER. 8. 7.

1 Thoughts of won-der, oh! how migh-ty, How stu-

Thoughts of won-der, oh! how migh-ty, How stu-

Fine.

pen-dous, how pro-found! All the stars that

pen-dous, how pro-found!

Da Capo.

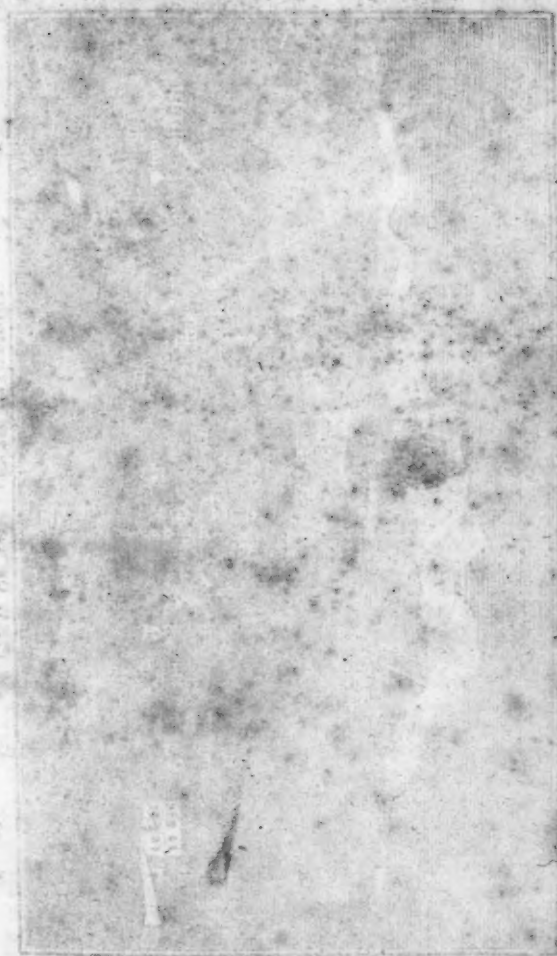
sparkle yon-der, Roll in orbs of vast-ness round.

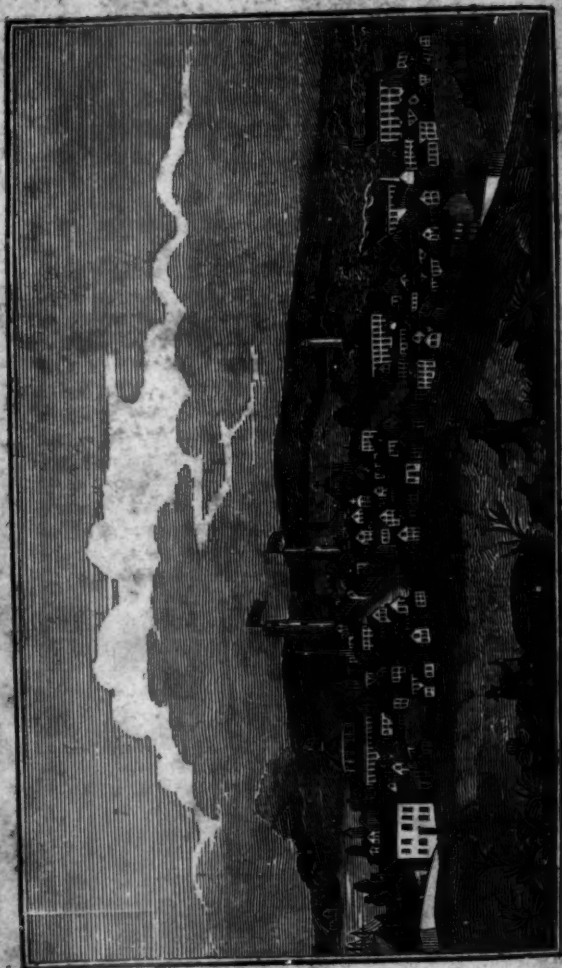
1 Thousands through the hours of darkness,
 Stud the concave of the sky ;
 Thousands, thousands, hid from science,
 Shine, unseen by mortal eye ;
 Thoughts of wonder, &c.

3 Pause, my thoughts :—lo! num'rous beings
 Move on every planet there ;
 All, for breath, and life, and guidance,
 Subject to their Maker's care :
 Thoughts of wonder, &c.

4 Every world has hills and valleys,
 And his hand formed every flower ;
 Every golden-winged insect,
 Sporting in the fragrant bower ;
 Thoughts of wonder, &c.

5 Every little joy and sorrow,
 Every hope and every fear ;
 Follow his supreme direction
 Fully as some mighty sphere ;
 Thoughts of wonder, &c.





A VIEW OF THE CITY OF BALTIMORE.